



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/553,773	10/19/2005	Dug-Sung Joo	2017-39	9350

52706 7590 02/28/2007
IPLA P.A.
3580 WILSHIRE BLVD.
17TH FLOOR
LOS ANGELES, CA 90010

EXAMINER

KENNEDY, JOSHUA T

ART UNIT	PAPER NUMBER
----------	--------------

3679

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/28/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/553,773

Applicant(s)

JOO, DUG-SUNG

Examiner

Joshua T. Kennedy

Art Unit

3679

JK

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

Figures 4 and 5 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The abstract of the disclosure is objected to because there should be no reference to purported merits, i.e., "easily couple reinforcing bars in reinforced concrete work, thus reducing a construction period and construction costs". Correction is required. See MPEP § 608.01(b).

Claims 1-5 have been examined.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear as to whether the applicant intends to claim the combination of the coupler and the reinforcing bar or the subcombination of the coupler alone. For this Office Action only, Examiner considers the subcombination only.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Lancelot III (US Patent 6,099,196).

As to Claim 1. Lancelot III discloses a reinforcing bar coupler, comprising:

a cover unit (24") having a circular hole therein and comprising two or more pieces capable of covering a circumference of a reinforcing bar (50a, 50b),

Art Unit: 3679

with outer surfaces of the pieces being inclined in the same direction to form a tapered surface (59; Claim 1, Lines 5-9), and an annular groove (56; Claim 1, Lines 5-6) being provided on an inner surface of each of the pieces so that an annular rib (52; Claim 1, Lines 3-4) of the reinforcing bar is seated in the annular groove (Fig 6); and

a locking bushing (62; Claim 1, Lines 9-12) having a shape of a pipe, the pipe having on an inner surface thereof a tapered surface to correspond to the tapered surface of the cover unit, the locking bushing compressing the cover unit inwards (Fig 6; Column 4, Lines 15-37; Claim 1, Lines 13-18).

As to Claim 2. Lancelot III discloses the cover unit (24") comprising a pair of pieces each having a semi-circular cross-section, with outer surfaces of the pieces being inclined in the same direction to form a tapered surface (59), and

the locking bushing (62) has a shape of a pipe having a circular cross-section, with an inner surface of the pipe being formed to be in close contact with the tapered surface of the cover unit (Fig 6).

As to Claim 5. Lancelot III discloses a bar coupling method (Claim 9; Col 4, Lines 15-34), comprising:

placing ends of reinforcing bars so that the ends of the reinforcing bars are butted on each other;

placing two or more pieces each having a tapered surface to surround the ends of the reinforcing bars; and

Art Unit: 3679

fitting locking bushings in one direction through a drive fitting method so that tapered surfaces provided on inner surfaces of the locking bushings come into close contact with the tapered surfaces of the pieces.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lancelot III in view of Kim (6,860,672).

Lancelot III discloses the reinforcing bar coupler significantly as claimed, but does not disclose the cover unit comprising a lateral groove provided on an inner surface of the cover unit in a lengthwise direction thereof so that a lateral rib is capable of being seated in the lateral groove.

Kim teaches a similar bar end coupler having a the cover unit (2) comprising a lateral groove provided on an inner surface of the cover unit in a lengthwise direction thereof so that a lateral rib is capable of being seated in the lateral groove "since there may be difficulty to insert reinforcing bars into the cylindrical sleeve such that the reinforcing bars radially coincide with each other" (Col 3, Lines 59-65). It would have been obvious to one of ordinary skill in the art to modify the reinforcing bar coupler of Lancelot III to have lateral grooves as

Art Unit: 3679

taught by Kim on the interior of the cover unit to align the reinforcing bars such that they radially coincide with each other.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lancelot III in view of Harrall et al (US Patent 2,066,276).

Lancelot III discloses the locking bushing significantly as claimed but does not disclose it comprising a pair of locking bushings to compress both ends of the cover unit which is installed to cover the reinforcing bar.

Harrall et al teach a bar end coupling member having a locking bushing comprising a pair of locking bushings (15, 16) to improve the "holding power of the coupling" (Col 2, Lines 1-2). Harrall et al also teach that a single collar and a plurality collars are interchangeably used in such an application of the art (Col 2, Lines 25-34). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the bushing of Lancelot III to have a plurality of collars as taught by Harrall et al to improve the holding power of the coupling.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patents 7118299, 4408926, 6773198, 3921281, 5308184, 5193932, and US Patent Application Publications 2003/0053856 2003/0012596.

Art Unit: 3679

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua T. Kennedy whose telephone number is (571) 272-8297. The examiner can normally be reached on M-F: 7am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571) 272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



JTK
2/22/2007



DANIEL P. STODOLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3800